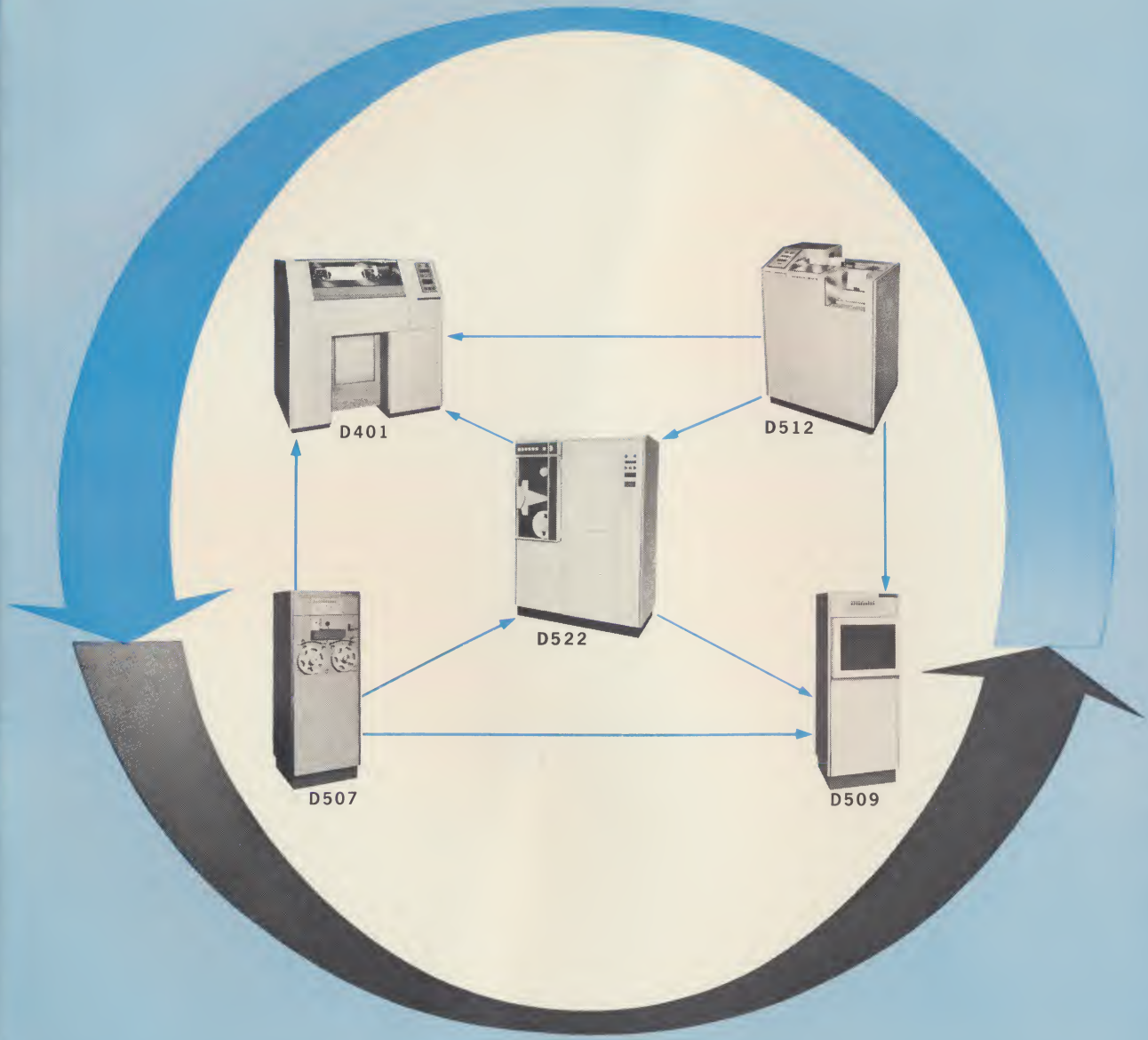
DIGITRONICS CORPORATION

NOW...MORE THAN EVER...FIRST IN INSTALLED, RELIABLE, ACCURATE, HIGH-SPEED DATA COMMUNICATIONS SYSTEMS



DIAL-O-VERTER®

"THIRD GENERATION"

Data Communications Systems

Now in use by many leading corporations...
a complete line of terminals...
endorsed by users for greater operating efficiencies...
provides up-to-the-hour management information

DIGITRONICS... long the leader in computer-oriented Data Communication Systems

SEPTEMBER, 1960
Digitronics Develops First All-Solid-State Magnetic Tape/Paper Tape Converter. For Merrill, Lynch, Pierce, Fenner and Smith, world's largest brokerage house. Now translating 16,000 market transactions daily.

OCTOBER, 1960
Digitronics Produces First Commercial High-Speed Data Transmission System To Use Ordinary Telephone Lines. Now serving leading corporations and federal agencies in this country and throughout the world.

MARCH, 1961
Digitronics Installs First Operational Commercial High-Speed Data Transmission System Utilizing Automatic Error Detection-Correction. Efficient economical system links Lever Brothers warehouses throughout the country with their Computer Center in New York.

JANUARY, 1962
Digitronics Installs First High-Speed Data Distribution System for Social Security Administration. Dial-o-verter network links Baltimore Master Files with all Regional Control Centers.

MARCH, 1962
Digitronics Initiates First 1500-WPM Data Transmission Via Transatlantic Telephone Cable. In regular use for over two years between New York, London and Paris.

AUGUST, 1962
Digitronics System Provides First Data Transmission at 1000 WPM to Paris Via Telstar Satellite. Experimental transfer of news by The New York Times to Paris for its International Edition.

MARCH, 1963
Digitronics Provides First Practical Link For "On-Line" Direct Talk Between Computer and Remote User. System allows Socony Mobil engineers throughout the world to utilize central computer facility.

FEBRUARY, 1965
Digitronics Installs First Reverse Channel Equipment For Higher Effective Transmission Rates. System for General Foods includes automatic error detection and correction.

THE ROLE OF DIGITRONICS IN HIGH-SPEED DIGITAL-DATA-COMMUNICATIONS

The need for high-speed, accurate, low-cost data communications, to match the enormous data processing capabilities of modern computers, was recognized by Digitronics back in 1959...long before computer manufacturers and users were aware that computers would cause a communications crises.

The use of the mails, voice communications and conventional wire services for getting information to and from data processing centers has proved to be as effective as trying to catch a jet airplane with a horse and buggy...and an unprofitable way of obtaining the optimum advantages modern computers can provide.

Digitronics engineers, aware that only pace-keeping data communications systems would eliminate this developing bottleneck in the profitable use of computers, "scooped" the industry by designing the first computer communications terminals—Digitronics Dial-o-verters. Digitronics pioneered high-speed data communications during the early 1960's with dozens of America's largest corporations. Such companies as Lever Brothers, U.S. Steel and Shell Oil Company, found that Dial-o-verter helped to solve their computer communications problems. They like the solution, because they've continued adding to their Dial-o-verter installations over the years.

Between 1959 and now, three generations of design have evolved from the practical experience Digitronics gained in installations in several hundred separate locations all over the world, where Dial-o-verter developed the best performance record for handling the fastest, most error-free data and message traffic for computers. Today's Dial-o-verter incorporates data communications features unmatched by any other equipment.

Digitronics Dial-o-verter terminals now constitute the broadest, most mature product line in the industry, including advanced products for every application from the largest data communications network to the smallest point-to-point system. Originally starting with America's largest corporations, Dial-o-verters are now being used by medium and small size companies for the broadest spectrum of applications.

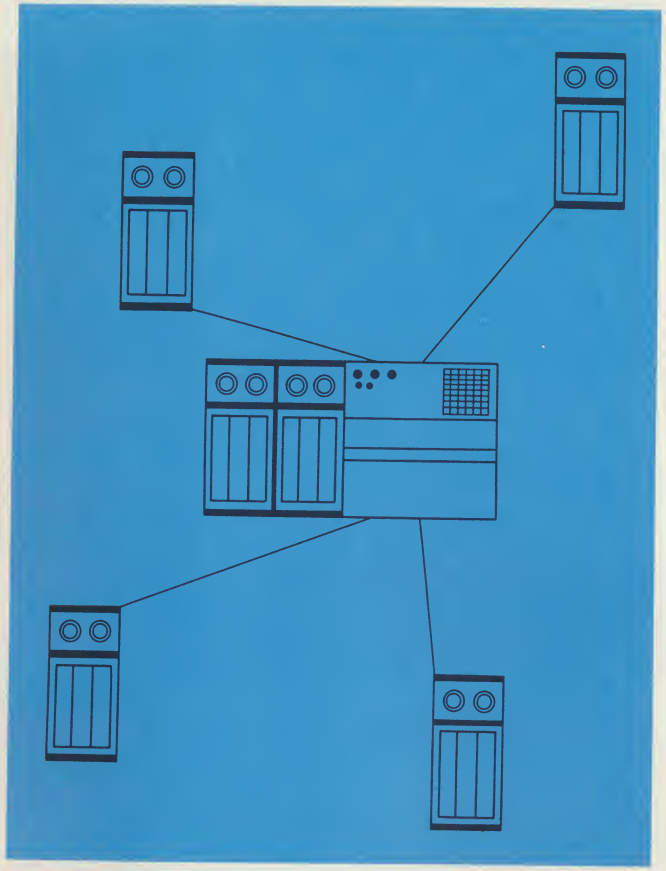
Now...more than ever...Digitronics leads all others in installed, high-speed, error-corrected data communications systems.

Dial-o-verter is a **real time** saver. Users of "third generation" computers are finding that there is no more efficient way than Dial-o-verter to communicate with their machines. Dial-o-verter with its wired-in programming, allows your computer to work at maximum efficiency. And, it does not matter whether you want to use punched cards, paper tape, or magnetic tape...or obtain a hard copy printout. Dial-o-verter offers all of these media.

Year after year, the economy, accuracy, speed, simplicity of operation and unmatched performance of Dial-o-verter equipment has enabled Digitronics to retain its leadership in high-speed, error-corrected data communications over the regular telephone network.

You can safely trust Digitronics to do your data communications job.

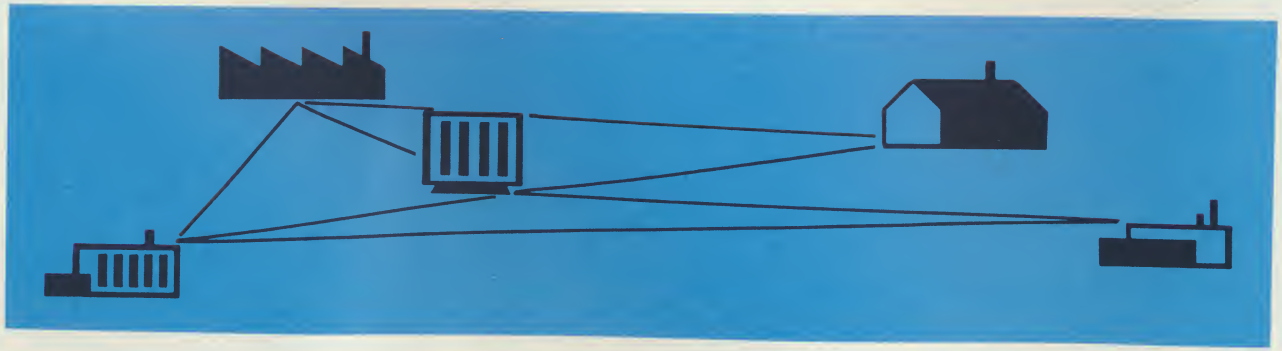
If you have a computer...or if one is on order...
consider DIAL-O-VERTER...
the data communications line that
offers maximum flexibility for implementing
a "total" data processing system.



The Dial-o-verter System...now in use and endorsed by many leading corporations... provides mature "third generation" advancements in performance for the economical and efficient improvement of modern business management information systems.

Dial-o-verter features conceived as a protest against data systems extravagance include: **ACCURACY**...Detection and correction of errors—accomplished by automatic retransmission...**HIGH-SPEED**...15 to 30 times faster than conventional equipment (up to 50,000 words per minute...and even faster over broadband facilities). **CONVERSION**...Input-to-output conversion, without computer intervention allows each user to select the media best suited to his system. **COMPATIBILITY**...terminals work with your present data preparation and processing equipment, with all telephone network facilities and with each other. **SIMPLICITY**...no customer programming required after installation. **ECONOMY**... communication costs cut by paying only for the telephone time used or utilizing an existing WATS line during off-hours for even greater savings.

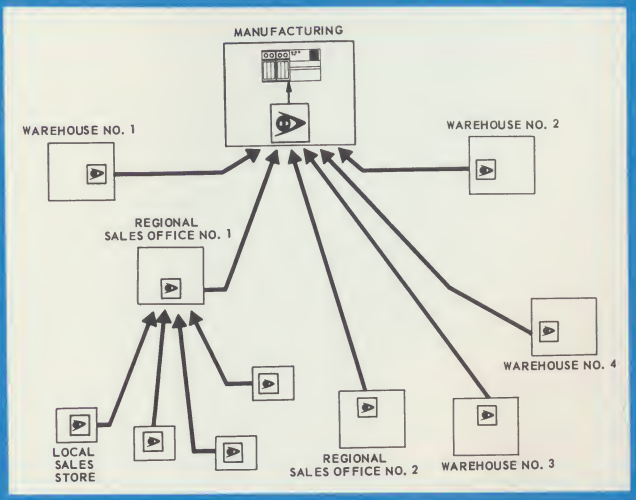
No other system offers such flexibility, such engineering excellence, with such reliable performance. Rigid performance tests are performed prior to delivery, on each of the basic terminals, as well as on customer-selected options. In addition, exhaustive systems tests are performed to assure the user that the terminals will **exceed** the application requirements for which they are designed.



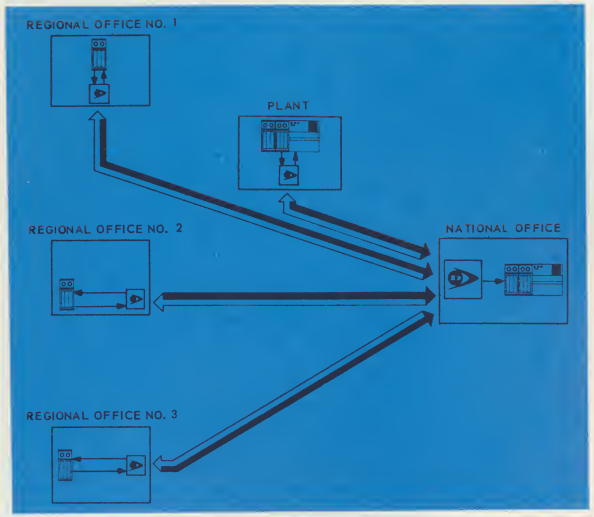
Digitronics equipment satisfies a wide variety of applications, including accounting, payroll, sales, billing, production, inventory and engineering data flow.

The information on the following pages can be worth thousands of dollars a month to your company... savings now enjoyed by many leading companies using DIAL-O-VERTER.....

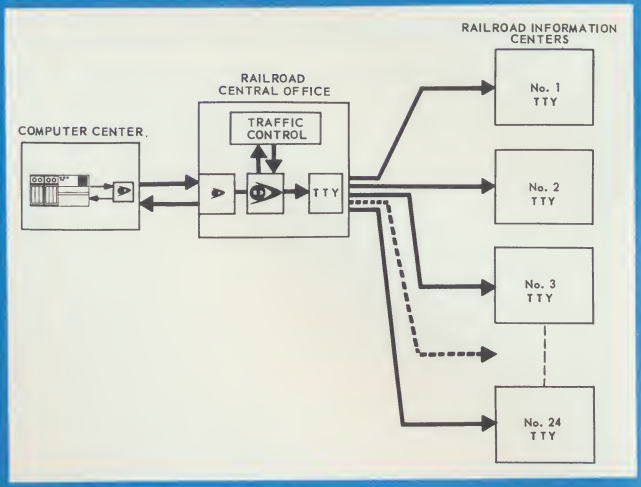
1 DATA COLLECTION:



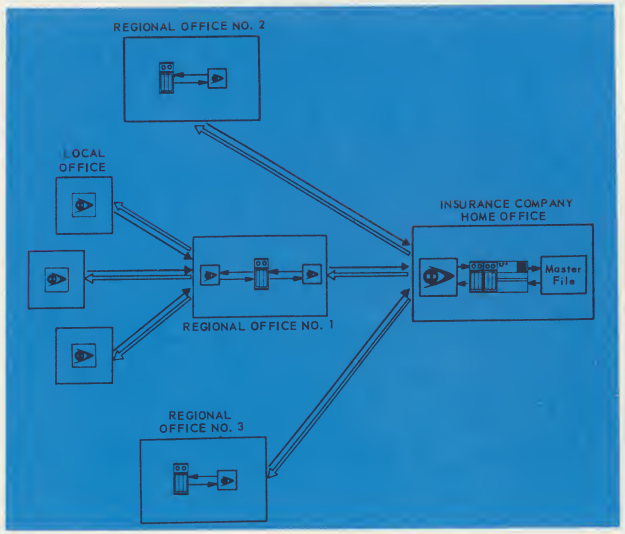
2 AUXILIARY PROCESSING AND LOAD SHARING:



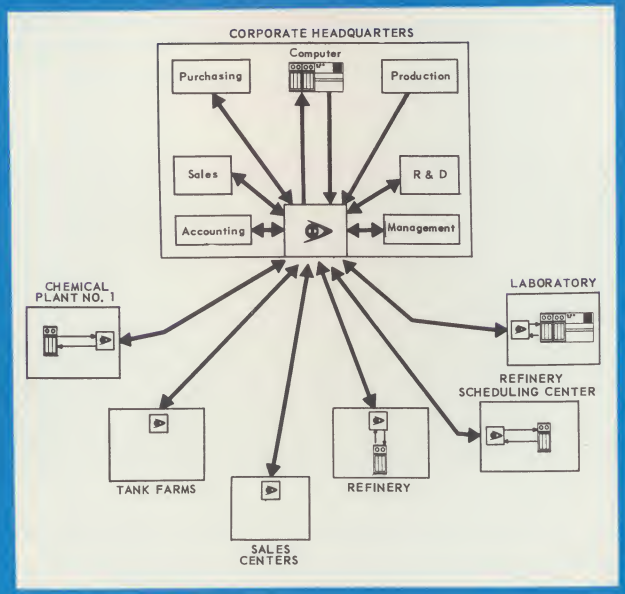
3 DATA DISTRIBUTION:



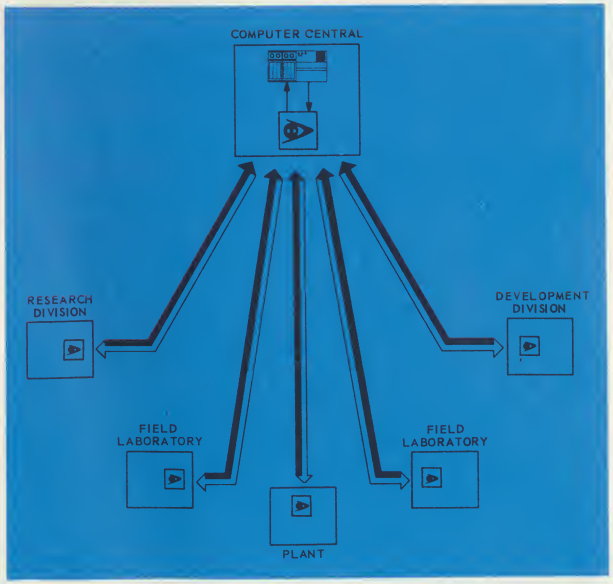
4 INQUIRY:



5 MESSAGE AND DATA SWITCHING:



6 REMOTE PROCESSING:



Here are the six fundamental data communication patterns used by profit-conscious leaders of industry

1

DATA COLLECTION: Data is where you find it. To use or process it, you must deliver it to the location of the high-speed electronic data-accumulation and data-processing equipment in the system.

Regardless of the form in which the data is found, or when it is found, and regardless of the rate at which it first appears, all data must arrive at the data-processing center in computer-compatible forms, and at computer-compatible rates. For best efficiency, this data transfer must be accomplished with minimum delay and maximum accuracy.

Digitronics Dial-o-verter equipment provides the complete answer to all such requirements. It can accept data on punched cards, punched tape or magnetic tape. It can collect data at a random or cyclic rate, transcribe it to the appropriate form, and store it until the appropriate moment for transmission. Then it transmits the accumulated data in one continuous stream, at speeds limited only by the ability of the interconnecting lines to carry them. Dial-o-verter is fully compatible with all types of private and commercial telephone lines and services, too, be they Dial, WATS, Telpak, or Leased . . . in fact, any information channel, including microwave and Satellite links, can be equipped to "talk digital" with a Dial-o-verter Terminal.

2

AUXILIARY PROCESSING AND LOAD SHARING: Every computer has a limit. Sometimes the limit is one of size, sometimes of program, sometimes even speed, but it rarely makes good sense to install a bigger, faster, more flexible computer than you will probably ever need . . . just to be safe. Normally, the sensible procedure is to install several machines of modest capacity and versatility, and get the most out of them through careful scheduling and judicious load-sharing, with the important bonuses of multiple location and multiple-unit "back-up" for added reliability.

Whenever there is more than one computer available to a data system, or when purchase of an additional computer is contemplated, a direct "reciprocal-trade agreement" should be investigated. Several computers can process incoming data simultaneously during a peak load period, to smooth out the "bumps" in the daily schedule. Alternatively, such computers can be assigned a separate part of the process, sharing the programs, rather than the loads.

Dial-o-verter is particularly well-suited to this kind of liaison. Needless to say, it offers considerably more than mere substitution; it pays for itself over and over, not just in the price of the more powerful computer you don't need, but in the more productive use of the system you now have, and in the increased speed and reliability of the combined operation.

3

DATA DISTRIBUTION: One set of data from any one location in the system may, after processing, be needed in one or more other locations . . . or parts of it, in several different forms and states of processing, may require distribution to a dozen different places.

Only when data reaches the point of application and has been translated into a useful form, does it have value . . . and time is often "of the essence".

Computation and tabulation take time, even in the fastest of computers. Conversion to new format takes time. Transmission to destination takes time, even when a line is instantly available on call. Checking and verifying accuracy takes time. Translation takes time.

Dial-o-verter systems cut even these electronic-process delays to the bone, and eliminate others outright. (For example, Dial-o-verter's "Reverse Channel" performance just about **eliminates** error-checking delay!) You get the fastest, most dependable distribution, regardless of "language barriers" or computer loading, with Dial-o-verter.

4

INQUIRY: The economics associated with a single, large, central data file are well established. High-speed random-access mass storage is superior to all other forms of information "banking", and most large central computers provide enough of this storage for most of the needs of all remote offices. With standard Dial-o-verter terminal equipment, any remote office can gain access to the main file, and search, modify, re-enter . . . do anything that could be done from the main computer console . . . from thousands of miles away. You can cut the cost of remote data-processing installations, most times, by refusing to duplicate the memory you are already paying for at the central office . . . by having Dial-o-verter eliminate that duplication.

5

MESSAGE AND DATA SWITCHING: Just as a telephone switchboard makes it possible to service hundreds of telephones with a handful of outside lines, Dial-o-verter can automatically, economically, and completely-reliably insure you of optimum system utilization, at minimum cost and delay, by equipping your central processing installation with switching and routing control units that achieve the necessary traffic control, under manual or automatic programming. This capability adds little to the cost of your "network", but may effectively double or triple its capacity and profit potential.

6

REMOTE PROCESSING: When you **must** have a computer at a particular place, the cost is automatically justified; however, if it will sit idle a good part of the time, you ought to consider alternatives. If, for example, you have remote offices that could make excellent use of a computer for a small fraction of each day or week, if they had access to one, the obvious answer is to make one central computer available to all, through Dial-o-verter links. The cost is rapidly amortized.

Considering a second computer? DIAL-O-VERTER may do more for you, at far less cost.

Recent surveys showed that the average **effective** utilization of computer time was less than 50% of what it **could** have been, with optimum data flow, to and from every data-use point! DIAL-O-VERTER terminals cost far less than a computer... and may fulfill your systems requirements more efficiently and economically. Let us explore this potential saving with you **now**... before you sign another lease.

Considering a new computer? Adding high-speed DIAL-O-VERTER to your plans may pay for it!

Computation time is measured in millionths of a second; waiting time is measured in minutes and hours. If you could group the "dead" spots and program some "live" assignments into that interval, you would gain a whole computer for that length of time. DIAL-O-VERTER can do this for your present computer, and the savings will help pay for the new one, even before it's installed. Include DIAL-O-VERTER in your new computer installation and gain computer time for additional, important data processing tasks. Simultaneously, you will need fewer peripheral devices... increase data throughput speeds and lower overhead costs.

WHY DIGITRONICS DIAL-O-VERTER?

Because **only** DIGITRONICS can offer you a **complete** selection of **standardized terminals** for implementing your **entire** data communications system. Only DIGITRONICS can offer you all of the advantages and services essential to an **optimum system, plus** full compatibility with practically every computer.

COMPLETE DEPENDABILITY

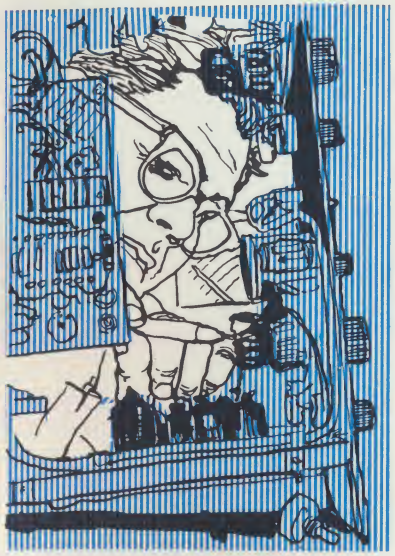
Digitronics has more years of first-hand experience in installing more reliable, accurate, high-speed digital data communications systems than any other company. As an endorsement, customer records show that original Digitronics equipment, the first high-speed data transmission terminals ever offered, are still in use in major U.S. company installations after more than four years of continuous operation. This unmatched performance record, combined with engineering and communication systems advancements—many created by our own specialists—is your assurance of complete dependability.

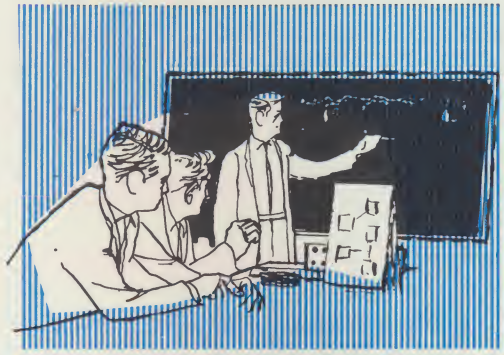
PROVEN, STATE-OF-THE-ART DESIGNS

DIGITRONICS, as the leading specialist in digital data communications, has acquired the largest range and variety of experience by far, places at your disposal the most advanced, diversified, and complete line of standardized data communications equipment available anywhere. Every DIGITRONICS terminal is a **third-generation** design—with all of the performance superiority and added dependability inherent in twice-refined equipment. Available on short delivery cycles, these equipments not only enable you to specify and obtain a complete operational network with negligible delay, but, engineered for automatic, foolproof performance as they are, they are ready to go to work for you the moment they are installed—a turn of the key, and you are in full operation.

COMPETENT FIELD ENGINEERING SERVICE—

Our own DIGITRONICS Maintenance and Repair Service is immediately available for all DIAL-O-VERTER customers. Strategically located across the nation, these factory-trained technicians are supported, in depth, by a staff of home office field service specialists.



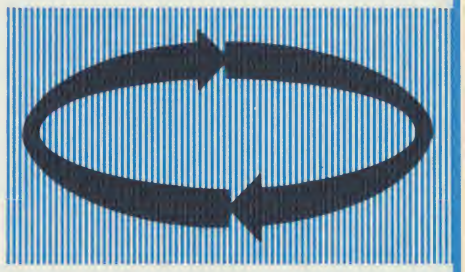


SYSTEMS/OPERATIONS ANALYSIS— TO HELP YOU OPTIMIZE YOUR SPECIFICATION

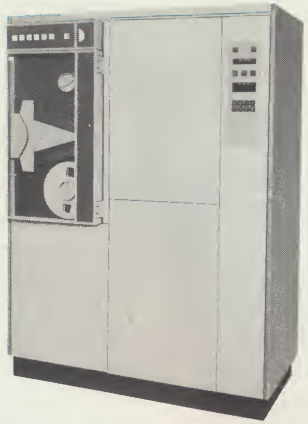
DIGITRONICS maintains a full-time staff of experts whose services are available to you in the planning stage with no cost or obligation. In designing your system, DIGITRONICS engineers draw on the most complete library of successful system configurations backed by proven performance. They know how to improve efficiency through data transmission. In addition, full technical support is always available to help you plan for sound, economical data processing system expansion.

EXCLUSIVE FEATURES

DIGITRONICS equipment incorporates many unique features which are exclusive with DIAL-O-VERTER. Your EDP specialists will tell you that such features as reverse-channel operation and multiple-accuracy checks, offer significant gains in speed and accuracy over competitive equipment.



SELECT THE OPTIMUM DIAL-O-VERTER TERMINAL EQUIPMENT FOR YOUR APPLICATION FROM THESE SIX STANDARD DESIGNS ...AND LITERALLY HUNDREDS OF CUSTOMER OPTION VARIATIONS!

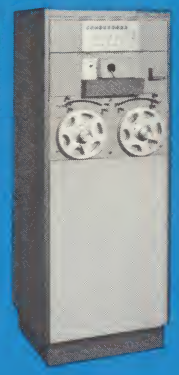


THE D-522 MAGNETIC TAPE TERMINAL*

- Fully Compatible With Associated Computers
- 1024-Character Core Memory Permits Efficient Match Between High-Speed Magnetic Tape and Slow-Speed Telephone Lines
- Paper Tape, Punched Card Reception, Reading, Translation, Other Standard Options, **Including** "Off-Line" Conversion
- Higher Effective Transfer Rates Through Reverse-Channel Operation
- Error Detection and Correction by Automatic Retransmission.

The D-522 is the cornerstone of a complete, high-speed data exchange and conditioning system, using computer-compatible magnetic tape, and communicating directly, via all commercial services . . . Dial or Leased Telephone Lines, Telpak, and WATS—with IBM, Univac, RCA, and other computers, at speeds up to 36,000 characters per second. Modular, solid-state construction permits expansion of its performance across the entire span of data-processing functions, including punched card and paper tape facilities; its ability to exchange, interpret, format and translate data is virtually unlimited. The D-522 is the best multi-purpose data terminal on the market today.

*Fully compatible with Digitronics DATA-VERTER® Data Acquisition Transmission System.

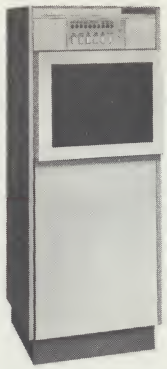


THE D-507 PAPER TAPE TERMINAL

- Transmits 5, 6, 7, or 8-Level Standard Tape, At Speeds Up To 285 Characters Per Second
- Uses Any Commercial Wire Line
- Compatible With Dial-o-verter Paper Tape, Magnetic Tape and Printer Terminals
- Reverse-Channel Operation Enables High Effective Rate Of Data Transfer
- Includes Automatic Error-Detection and Correction

The Dial-o-verter D-507 Paper Tape Terminal provides high-speed transmission of data from punched paper tape employing any one of four code levels (5 to 8), utilizing any standard commercial wire line. The terminal operates at a pre-set reading speed between 100 and 285 characters per second, determined by the capabilities of the receiver and the communication line used.

The D-507 is compatible with reverse-channel Data-Phone subsets, and provides error-checking, synchronization, and automatic retransmission. It is designed to communicate directly with Dial-o-verter Paper and Magnetic Tape Terminals and Printers, providing fast, automatic, dependable transfer of information with admirable economy of both time and facilities.



THE D-509 PAPER-TAPE TERMINAL

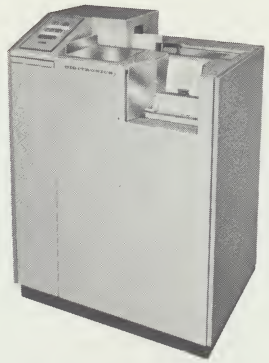
- Receives 5 To 8-Level Codes On Punched Tape, At Speeds Up To 100 Characters Per Second
- Accepts Data From Paper Tape, Magnetic Tape or Punched Card Terminals
- Uses Any Commercial Wire Line
- Reverse-Channel Operation, For High Rate Of Data Transfer
- Includes Automatic Error Detection and Correction

The D-509 receives data via standard voice-grade telephone lines, and converts it to punched tape format at speeds up to 100 characters per second. Used with Data-Phone subsets having reverse channel facilities, it provides synchronization, error-checking, and automatic retransmission, for fast, accurate data transfer between organizational units. It can also be connected locally with other Dial-o-verter terminals to provide economic conversion from other media (magnetic tape or punched cards) to punched paper tape.

THE D-401 ON-LINE PRINTER TERMINAL

- Accepts Transmitted Data For Print-Out At Up To 300 Lines Per Minute
- Prints 120 Column Positions
- Standard 64-Character Alpha-Numeric Font
- Higher Effective Transmission Rates Through Reverse-Channel Operation
- Automatic Error-Detection and Correction

The D-401 On-Line Printer Terminal is a full alpha-numeric printer that accepts data from other Dial-o-verter Terminals, and prints it out, rapidly and clearly, on continuous forms in multiple copies—up to 120 columns wide (10 columns per inch), at speeds up to 300 lines per minute (six lines per inch), using a 64-character font. A convenient, efficient means of switching directly from "bits" to purchase orders at your main sales office, production schedules at your plant, shipping orders at your warehouse, inventory reports at your headquarters, payroll tabulation at your branch offices, and a host of other time-saving, cost-cutting transcriptions throughout your organization. Wherever data must emerge from "computerese", and become a permanent, written record, compatible with the human optical system, the D-401 performs the conversion, from paper tape, magnetic tape, or punched card media to clean, legible typography.

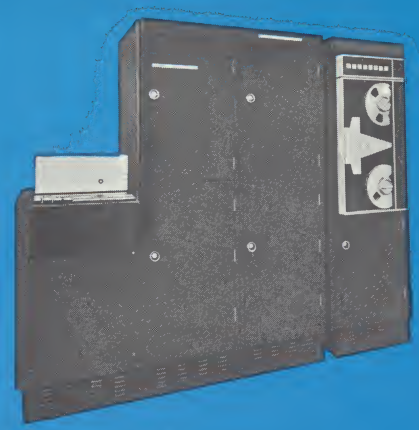


THE D-512 SERIAL CARD TERMINAL

- Transmits 80-Column Cards, Up To 400 Cards Per Minute
- Uses Any Commercial Wire Line
- Fully Compatible With Dial-o-verter Paper Tape, Magnetic Tape and Printer Terminals
- Reverse-Channel Operation
- Error-Detection and Correction

The Dial-o-verter Serial Card terminal is a high-speed data transmitter that reads 80-column Hollerith punched cards at speeds up to 400 cards per minute, and conveys the extracted data via commercial telephone lines to remote stations equipped with Dial-o-verter Paper Tape, Magnetic Tape, or Printer Terminals. Data reliability is ensured by error-checking, synchronization, and retransmission.

Data-processing systems employ the D-512 as an economical and convenient means of translating data to the higher-speed formats that enable the computer, and the system communication network, to operate at full efficiency.



THE D-521 MAGNETIC TAPE TERMINAL

- Full Compatibility With Associated Computers
- Direct Communication With Other Terminals Via Commercial Lines and Services
- All Checking, Retransmission Facilities
- Speeds Up To 36,000 Characters Per Second

The Dial-o-verter D-521 transmits from and receives on computer-compatible magnetic tape, over voice-grade telephone lines as well as over broader-band communications channels. Equipped with two 1024-core memories, the terminal is able to overlap the data-transmission and tape read/write functions for efficient, high-speed utilization of the communication channel; using Telpak A facilities, for example, it effectively transmits at 95% or better of the 5,100-character-per second rated speed of the circuit. Line charges are minimized, and no computer time is required at either end.

The D-521 is compatible with input-output equipment of computers such as Univac, IBM, RCA and others; with Dial-o-verter Punched-Card, Punched-Tape and Printer terminals, and includes all synchronization, error-checking and retransmission capabilities.

HERE ARE SOME OF THE COMPANIES, INSTITUTIONS, AND AGENCIES NOW USING DIGITRONICS HIGH SPEED DIGITAL DATA COMMUNICATIONS SYSTEMS, FOR EFFICIENCY AND PROFIT:

APPLIANCES
RCA
Sylvania
Whirlpool

FOOD
General Foods
Kellogg
Kroger

GLASS
Owens-Illinois
Pittsburgh Plate Glass

GOVERNMENT
Army Procurement
National Aeronautical and Space Administration
Social Security Administration
Veterans Administration

METALS
Bethlehem Steel
U. S. Steel

PACKAGE GOODS
Chesebrough-Pond's
Lever Brothers

PETROLEUM
Shell Oil
Sinclair Oil
Socony Mobil

PUBLISHING
The New York Times
Time, Inc.
Wall Street Journal

TRANSPORTATION
American Air Lines
Canadian Pacific Railways
Chicago-Milwaukee Railroad
Illinois Central Railroad

it's your move...

Are you a management executive charged with profit responsibility?

Let Digitronics Systems Specialists demonstrate how you can improve your system economics. We'll be happy to arrange a convenient appointment!

See back page for details

Are you an EDP Supervisor or Programming Specialist?

We have prepared Technical Information on each of our Dial-o-verter terminals... to spark your thinking!

Call any office listed on the next page for your copies

Here's how to take the next step towards
a DIAL-O-VERTER advanced data communications system for your company...

Management executives should write directly to:

Vice President, Marketing
Digitronics Corporation
Albertson, New York

or call one of the offices listed below to arrange for an appointment.

EDP specialists can obtain Technical Information on
DIAL-O-VERTER Systems from any of the following offices:

DIGITRONICS CORPORATION
10 EAST 40th STREET
NEW YORK, N.Y. 10016
(212) MU 6-0870

DIGITRONICS CORPORATION
704 S. SPRING STREET
LOS ANGELES, CALIF. 90014
(213) 623-2752

DIGITRONICS CORPORATION
6955 NORTH AVENUE
OAK PARK, ILLINOIS 60302
(312) 3332-2577

DIGITRONICS CORPORATION
INVESTMENT BUILDING
PITTSBURGH 22, PENNA.
(412) CO 1-3352

DIGITRONICS CORPORATION
8555 16th STREET
SILVER SPRING, MD. 20910
(301) 587-4240

DIGITRONICS CORPORATION **Albertson, New York, Tel: 516-HT 4-1000**

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